

Model Question Paper-1/2 with effect from 2021(CBCS Scheme)

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7th Semester B.E. Degree Examination FLIGHT TESTING

TIME: 03 Hours

Max. Marks: 100

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

Module -1			*Bloom's Taxonomy Level	COs	Marks
Q.01	a	What is flight testing? Write the sequence of flight testing.	L1		4
	b	Explain the history of Civil air Governing regulations.	L1		4
	c	Brief about the methods of reducing data uncertainty in flight test data.	L2		12
OR					
Q.02	a	What are pressure and temperature sensing device? Explain the corresponding transducing techniques used for flight testing.	L2		10
	b	With a block diagram, write about the onboard and ground based data acquisition system.	L3		10
Module-2					
Q. 03	a	Explain in detail about the In-flight calibration methods.	L2		10
	b	Explain the flight testing and data reduction methods for level turn performance.	L2		10
OR					
Q.04	a	Discuss about the range estimation for a propeller aircraft.	L3		10
	b	Discuss the takeoff and landing testing procedures in detail.	L3		10
Module-3					
Q. 05	a	Explain about the Stick free methods of flight testing for static longitudinal stability.	L1		10
	b	Brief about the testing methods for dynamic longitudinal stability.	L3		10
OR					
Q. 06	a	Write short notes on steady pull ups and steady pushovers testing methods of manoeuvring stability.	L2		10
	b	With a neat graph, explain the data reduction techniques for manoeuvring stability.	L2		10
Module-4					
Q. 07	a	Define lateral stability.	L1		4
	b	Write the necessary equations for the coupling between rolling and yawing moments.	L3		8
	c	Write short notes on steady heading slide slip.	L3		8
OR					
Q. 08	a	Define roll stability.	L1		4
	b	Explain in detail about adverse yaw effects and mention the testing methods.	L3		8
	c	Explain in detail about the aileron reversal and mention the testing methods.	L3		8
Module-5					
Q. 09	a	What are MIL and FAR Regulations?	L2		6
	b	What is Pilot rating? Assess the aircraft characteristics by using cooper harper scale.	L4		14
OR					
Q. 10	a	What are stall and spin regulations.	L2		6
	b	Explain about the testing methods for flutter, vibration and buffeting.	L3		14

Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the COs and POs to be attained by every bit of questions.